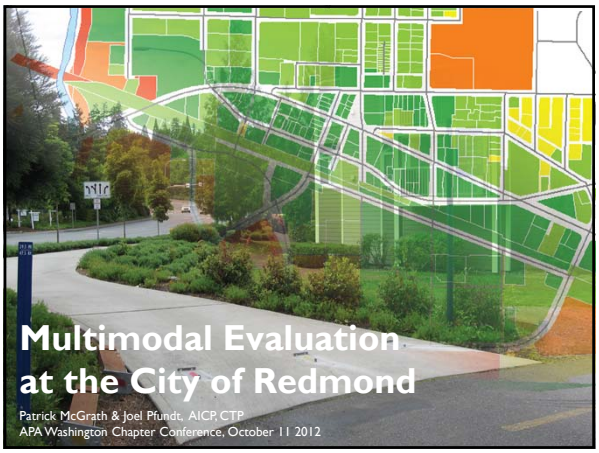


Multimodal Evaluation at the City of Redmond

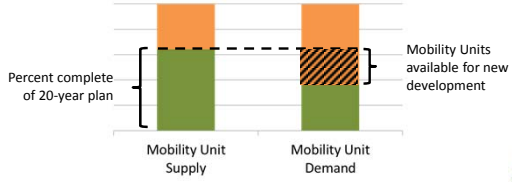
Patrick McGrath & Joel Pfundt, AICP, CTP
APA Washington Chapter Conference, October 11 2012

How Did Redmond Get There?

- 2005 Transportation Master Plan (TMP)
  - A plan that supports and enables land use vision
  - Implemented Annual Mobility Report Card
- TMP Update identifies key strategies, outcomes and performance measures to better tell Redmond's transportation story

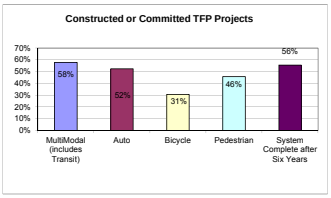
Multimodal Plan-Based Concurrency

- PM peak hour person miles traveled (Mobility Unit)
- Improve level of service (LOS) by implementing projects and programs in 20-year plan that add MU supply
- Development produces MU demand
- Ensure that growth and transportation improvements are proportional



Results

- Broader implementation of projects to meet concurrency
- Simple and predictable
  - Lookup tables to determine mobility units
  - Checkbook style ledger

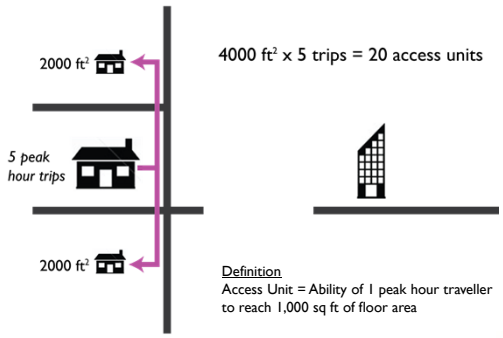


Pros
- Driven by community values – not tied to a single measure (congestion)
- Yields the city we want to have
- Minimal resources required for upkeep

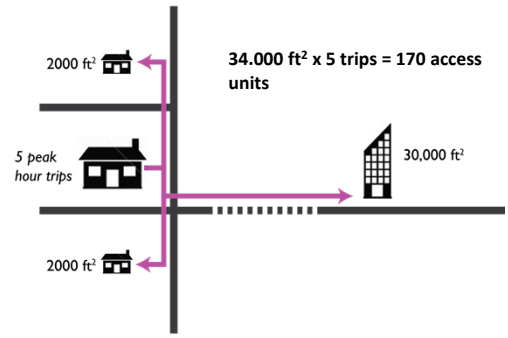
Cons
- Using person miles traveled means transportation demand management has be accounted for differently
- "Supply" is based on an output (project cost), not on transportation outcome (e.g. capacity, access, delay…)

1. Multimodal concurrency
2. Pedestrian route directness

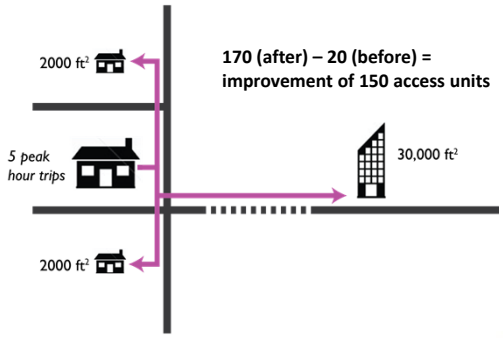
Access-Based Concurrency Concept



Access-Based Concurrency Concept



Access-Based Concurrency Concept



Access-Based Concurrency Concept

Process

1. Run baseline year (e.g. 2012). Each parcel gets access score "A."
2. Run plan year (e.g. 2030). Each parcel gets updated access score "B."
3. ∑(B) – ∑(A) = Supply delivered by City projects.
4. Supply exceeds demand = concurrent.

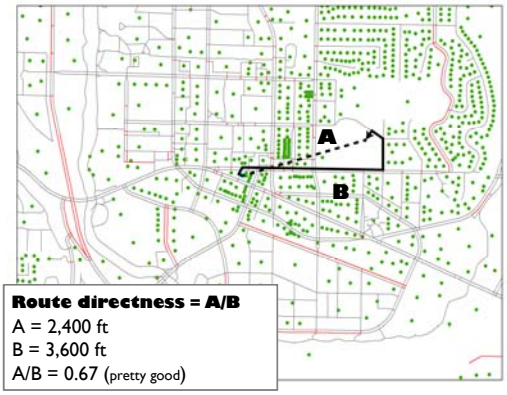
Access-Based Concurrency Concept

Unresolved Issues

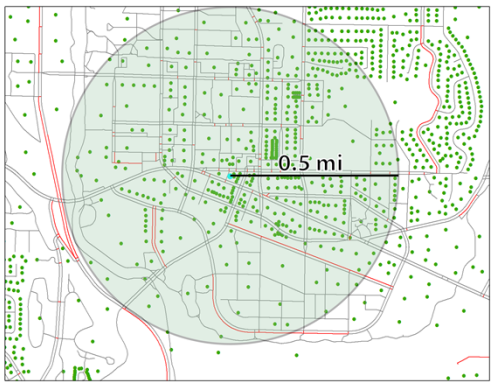
- Multimodality
- Synergistic projects
- Time/resources required

Pedestrian Route Directness – The Function

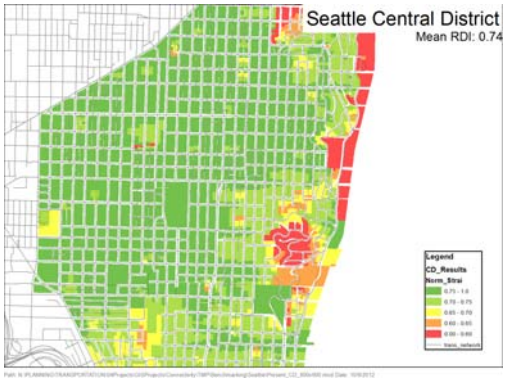
Pedestrian Route Directness – The Function



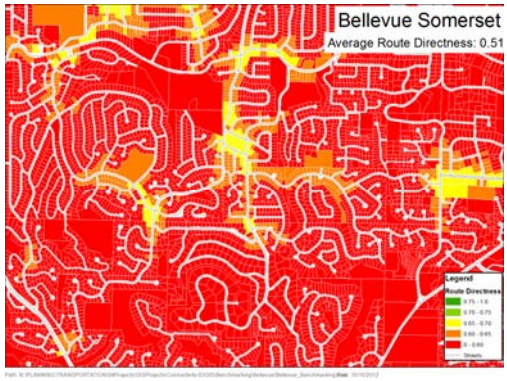
Pedestrian Route Directness – The Function (Radius)



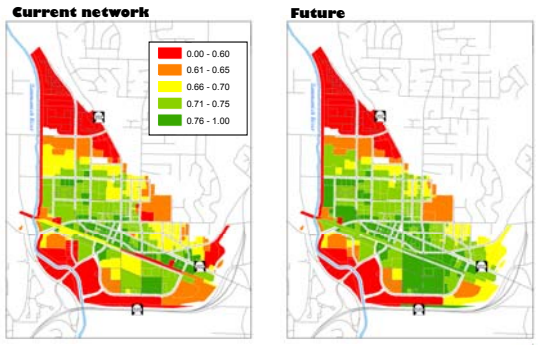
Pedestrian Route Directness – Example of Highly-Connected Neighborhood



Pedestrian Route Directness – Example of Low-Connectivity Neighborhood



Pedestrian Route Directness – Downtown Redmond Results



Urban Network Analyst – Results

	Current		Buildout (2030+)	
Route Directness	Floor Area (Sq Ft)	Percent	2030 Floor Area (Sq Ft)	Percent
0.75 - 1.0	1,078,028	15%	3,693,205	30%
0.70 - 0.75	2,443,996	34%	4,351,359	36%
0.65 - 0.70	1,323,967	19%	1,367,948	11%
0.60 - 0.65	1,222,847	17%	1,512,662	12%
0 - 0.60	1,033,442	15%	1,193,169	10%
Total	7,102,280	100%	12,118,343	100%
Average RD	0.66		0.70	

Connectivity Tools

MIT Urban Form Lab
Urban Network Analysis

http://cityform.mit.edu/projects/urban-network-analysis.html

Transpo Group
ViaCity

http://www.viacity.info/

Access-Based Concurrency Concept

Contact Information

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Access-Based Concurrency Concept

Thank you

Connectivity Resources

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- Tresidder, Mike. "Using GIS to Measure Connectivity: An Exploration of Issues". Portland State University, 2005.
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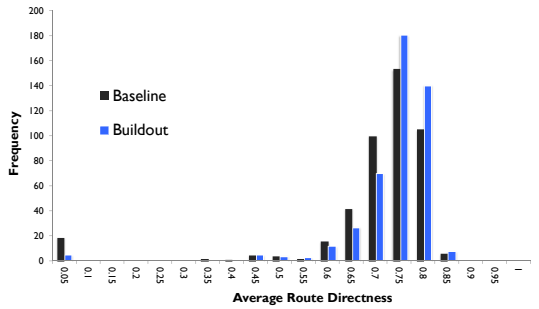
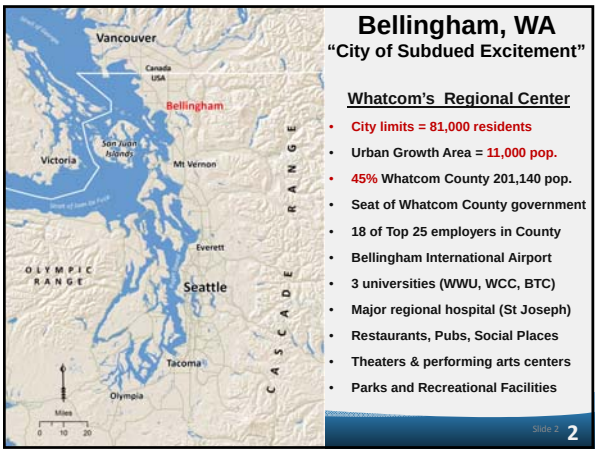
Pedestrian Route Directness – Distribution of Values





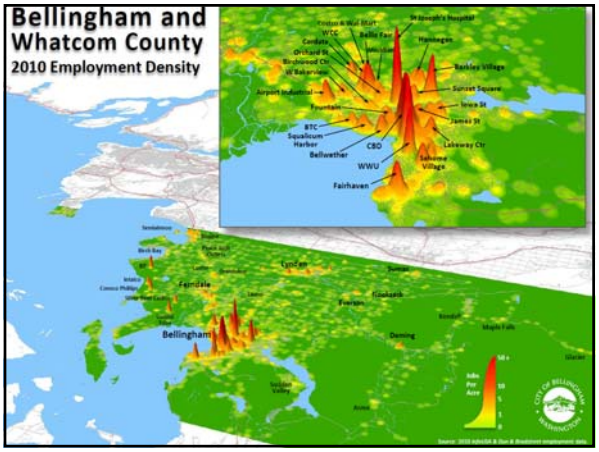
Bellingham, WA

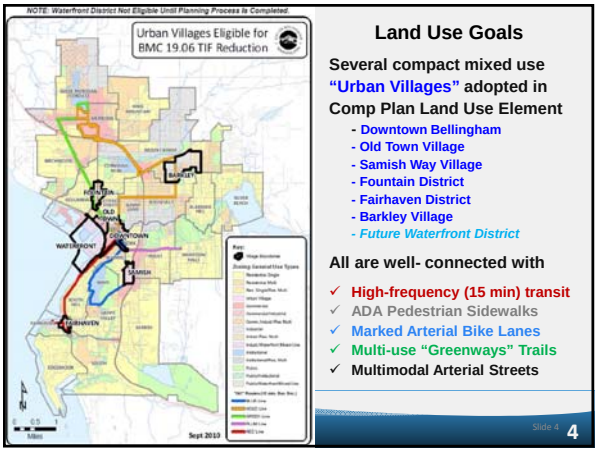
"City of Subdued Excitement"

Whatcom's Regional Center

- City limits = 81,000 residents
- Urban Growth Area = 11,000 pop.
- 45% Whatcom County 201,140 pop.
- Seat of Whatcom County government
- 18 of Top 25 employers in County
- Bellingham International Airport
- 3 universities (WWU, WCC, BTC)
- Major regional hospital (St Joseph)
- Restaurants, Pubs, Social Places
- Theaters & performing arts centers
- Parks and Recreational Facilities

Slide 2 **2**





Land Use Goals

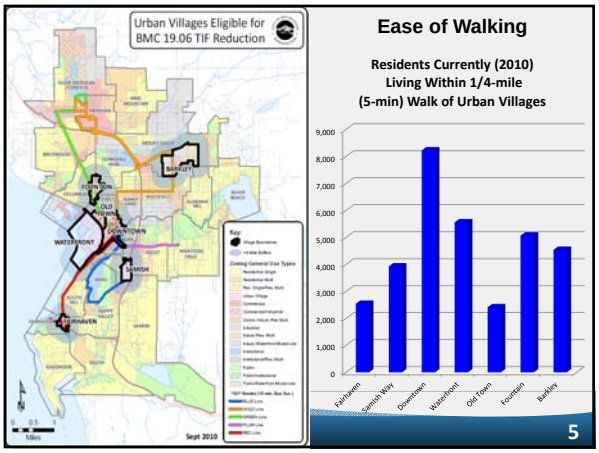
Several compact mixed use **"Urban Villages"** adopted in Comp Plan Land Use Element

- Downtown Bellingham
- Old Town Village
- Samish Way Village
- Fountain District
- Fairhaven District
- Barkley Village
- *Future Waterfront District*

All are well- connected with

- ✓ High-frequency (15 min) transit
- ✓ ADA Pedestrian Sidewalks
- ✓ Marked Arterial Bike Lanes
- ✓ Multi-use "Greenways" Trails
- ✓ Multimodal Arterial Streets

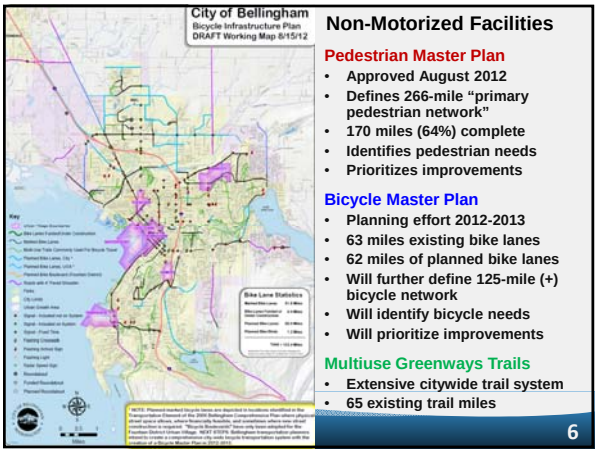
Slide 4 **4**



Ease of Walking

Residents Currently (2010) Living Within 1/4-mile (5-min) Walk of Urban Villages

5



Non-Motorized Facilities

Pedestrian Master Plan

- Approved August 2012
- Defines 266-mile "primary pedestrian network"
- 170 miles (64%) complete
- Identifies pedestrian needs
- Prioritizes improvements

Bicycle Master Plan

- Planning effort 2012-2013
- 63 miles existing bike lanes
- 62 miles of planned bike lanes
- Will further define 125-mile (+) bicycle network
- Will identify bicycle needs
- Will prioritize improvements

Multiuse Greenways Trails

- Extensive citywide trail system
- 65 existing trail miles

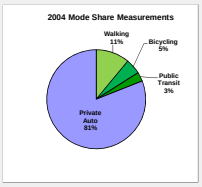
6

Bellingham's Multimodal Transportation Mode Shift Goals

TG-28: Set target goals to increase the mode share of pedestrian, bicycle, and transit trips and reduce automobile trips as a percentage of total trips, as listed below.

Mode	2004[1]	2010[2]	2015[2]	2022[2]
Auto	87%	84%	80%	75%
Transit	2%	3%	4%	6%
Bike	3%	4%	5%	6%
Ped	8%	9%	11%	13%

Notes:
1. 2004 raw data from FTA/Social Data Study
2. City/WTA recommendations based on 2004 raw data from FTA/Social Data Study



Slide 7 **7**

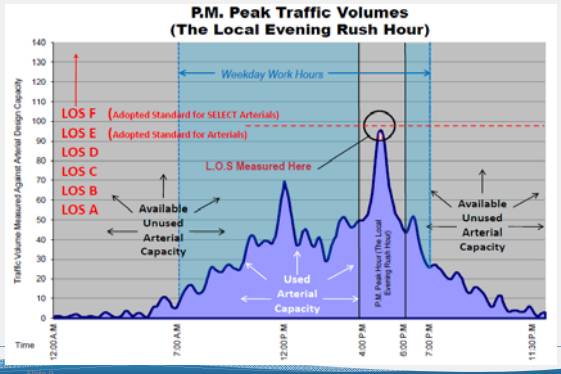
You Get What You Measure

(Inadequate Metrics = Inadequate Outcomes)

- **Key Concepts**
  - ➢Traditional LOS Standards & Perspectives
  - ➢Common Outcomes Resulting from Inadequate Tools & Metrics

Slide 8 **8**

Traditional HCM "Level of Service" (LOS) is Auto-centric



Slide 9 **9**

Terminology of Metrics: Inverse Values = Public Confusion

Public Experience: Grade Report Cards	LOS	Traffic Engineering Demand vs. Supply
Academic Achievement	Value Assigned	Transportation Capacity
90–100%	A	50–60%
80–90%	B	60–70%
70–80%	C	70–80%
60–70%	D	80–90%
N/A	E	90–100%
< 60%	F	>100%

Highway Capacity Manual letter value LOS classifications and inaccurate engineering terminology, such as **"failure,"** contribute to public confusion and controversy

Slide 10 **10**

Traditional LOS & GMA Concurrency Approach

- **GMA Goals:** "compact urban infill" … "discourage urban sprawl" … "encourage multi-modal" transportation system
- **Common Approach:** Adopt/maintain static LOS standards based on a mode-limited measurement (traffic volume / road capacity) from national manual (HCM) that is not registered to the local community's desired land use and transportation goals;
- **Common Implementation:** Develop, deny, or mitigate (add vehicle capacity);
- **Common Result:** Road and intersection widening in urban area, development pushed to edges of City, expansion of "urban sprawl," primarily land-intensive and auto-oriented transportation system

…….. ***Common results don't achieve the GMA goal.***

"Insanity: doing the same thing over and over again, but expecting different results"
– attributed to Albert Einstein

Slide 11 **11**

Measures to Get What You Want

RCW 36.70A.070 (6) requirements: "A transportation element that implements, and is consistent with, the land use element."

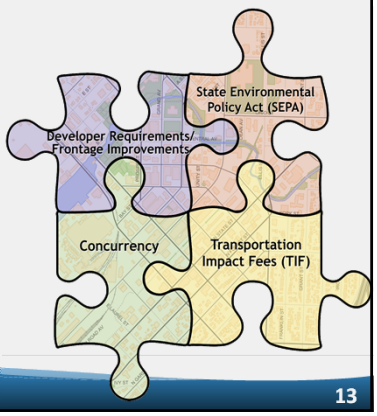
Key Concepts

- ➢Regulatory Tools & What GMA really says …..
- ➢Basic Assumptions About "Growth"
- ➢Bellingham's Multimodal Measurements
- ➢Land Use Typology & "Policy Dials"
- ➢Annual Concurrency Status Reports

Slide 12 **12**

Washington's Regulatory Tools for Transportation

- **Multimodal Concurrency:** Sidewalks, bike lanes, transit service, and arterial improvements;
- **SEPA (Traffic Studies):** Traffic signals, turn lanes, safety, connectivity of non-motorized facilities;
- **Street Standards:** Sidewalks, bike lanes, street trees, ADA-ramps;
- **Transportation Impact Fee:** Recoup portion of City's capital investment in citywide multimodal transportation network.



Slide 13

13

Washington GMA Concurrency Requirements

- **WAC 365-195-510 (3) (b) Concurrency:** *Levels of service* should be set to reflect *realistic expectations consistent with the achievement of* ***growth aims.*** Setting such levels too high could, under some regulatory strategies, result in no growth. As a deliberate policy, *this would be contrary to the act.*

Simple Translation …..

- Transportation Concurrency is NOT a regulation to stop growth, but a performance measure to ensure that **adequate** transportation facilities are available to serve amount of growth planned for in Comprehensive Plan.
- ***Thankfully*** GMA does not define LOS standards for local jurisdictions or the methodology used to monitor, maintain, and enforce LOS because there is not a "one-size-fits-all" solution

Bellingham's Perspective

- **"Growth Aims"** = **Infill**, Urban Villages, Multimodal, and Mode Shift
- **"Adequate"** means **Multimodal** Transportation Facilities – All Modes
- Bellingham adopted LOS standards and a **"Plan-based"** Multimodal Transportation Concurrency **performance measures** tailored to achieving ***local*** Comp Plan goals and priorities for ***urban infill*** and ***multimodal transportation***

Slide 14

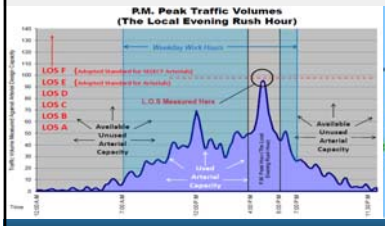
14

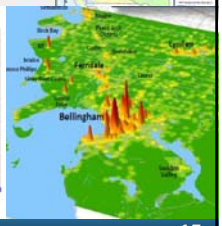
2004-2006 Comprehensive Plan Update

Bellingham Transportation Policy 12

To further support the Urban Village and infill strategy of the Land Use Element, the Bellingham City Council allows some arterials to experience higher levels of vehicle traffic congestion during the weekday p.m. peak hour, as follows:

- On local arterials within designated Urban Villages;
- On local arterials that enter/exit the City; and
- On local arterials where mitigation is not feasible. *[or desirable]*

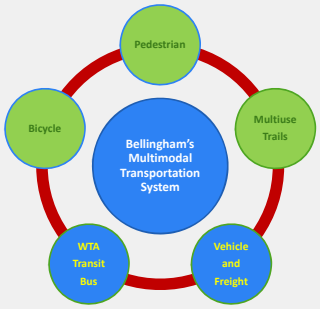




15

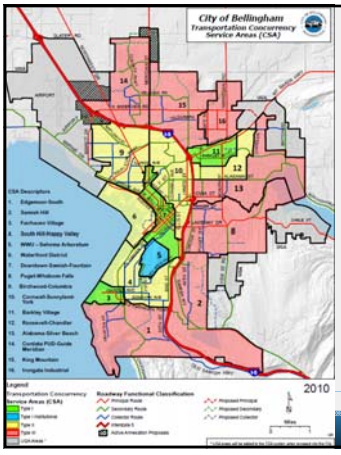
Creating a Multimodal Transportation Concurrency System

GOAL: Implement Comp Plan Vision for how transportation should look, feel, and function in Bellingham



- **2008 hired TranspoGroup, Inc.**
- **15 alternatives studied – 10 months**
- **"Plan-based" - 16 Concurrency Service Areas (CSA)** *["Mobility Sheds"]*
- **Variable typology & weighting factors based on land use context**
- **Pedestrian = % completeness of network in Pedestrian Master Plan**
- **Bicycle = % completeness of network in Bicycle Master Plan**
- **Multiuse Trails = % completeness relative to Ped & Bike networks**
- **Transit = WTA seated 2-way capacity and WTA ridership counts**
- **Vehicles = pm peak 2-way arterial volume-to-capacity (v/c) - HCM**

16



16 Concurrency Service Areas (CSA)

CSA = "Mobility-Sheds"
based on land use typologies

3 Urban Village (Type 1) Green
Higher density urban mixed use
- **Downtown Core District**
- **Barkley Village District**
- **Fairhaven Village District**

1 Urban Institutional (Type 1A) Blue
Western Washington University
(Future: Hospital, WCC, BTC)

5 Transition (Type 2) Yellow
Moderate density neighborhoods

7 Suburban (Type 3) Red
Lower density neighborhoods
Auto-centric commercial (north)

17

"Policy Dials"

Mode Weight Factors

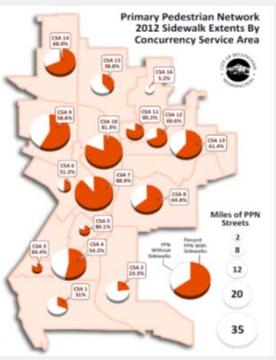
Based on Land Use Typology

	Transportation Concurrency Service Areas		
Mode	Type 1[1] and 1A[1]	Type 2[2]	Type 3[3]
Motorized			
Auto			
Mode weight factor[4]	0.70	0.80	0.90
Transit			
Mode weight factor[5]	1.00	1.00	0.80
Non-Motorized			
Pedestrian			
Percent threshold for minimum system complete[6]	50%	50%	50%
Person trip credit for 1% greater than minimum threshold[7]	20	20	20
Mode weight factor[8]	1.00	0.90	0.80
Bicycle			
Percent threshold for minimum system complete	50%	50%	50%
Person trip credit for 1% greater than threshold	20	20	20
Mode weight factor[8]	1.00	0.90	0.80
Multi-Use Trails[10]			
Person trip credit for 1% greater than threshold[11]	10	10	10
Mode weight factor[12]	1.00	0.90	0.80

Slide 18

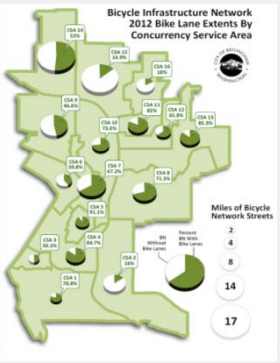
18

Pedestrian Infrastructure Completeness by CSA



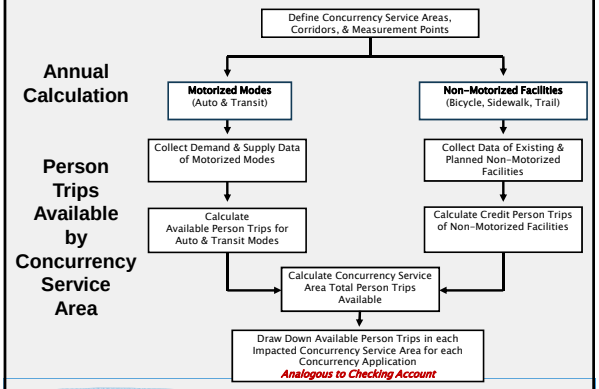
19

Bicycle Infrastructure Completeness by CSA



20

Annual Calculation / Person Trips Available by Concurrency Service Area



Slide 21

21

Transportation Report on Annual Concurrency (TRAC)

Table 1. Person Trips Available (PTA) by Concurrency Service Area (CSA) in 2012

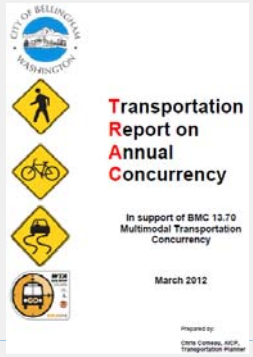
	Sidewalks[1]		Multiuse Trails		Bicycle Lanes[2]		WTA[3]	Auto[4]	2012
	%	Credit	%	Credit	%	Credit	Transit	Arterial	Net
CSA	Comp	PTA	Comp	PTA	Comp	PTA	PTA	PTA	PTA[4]
1. Edgemoor-South	31%	0	44%	442	79%	580	49	975	1,546
2. Samish	23%	0	27%	269	16%	0	19	2,367	2,155
3. Fairhaven Urban Village	84%	680	61%	611	50%	0	266	1,276	2,267
4. South Hill-Happy Valley	54%	80	50%	502	85%	700	168	1,611	2,561
5. WWU	80%	600	13%	125	91%	820	989	307	2,341
6. Waterfront District[5]	51%	20	39%	388	40%	0	0	880	788
7. Urban Core (4 Villages)	89%	780	15%	148	67%	340	1,194	6,952	8,768
8. Puget-Whatcom Falls	65%	300	86%	856	71%	420	211	3,599	4,886
9. Birchwood-Columbia	59%	380	11%	113	47%	0	393	2,071	2,457
10. Cornwall-Sunnyland-York	81%	620	14%	142	74%	480	646	3,257	4,489
11. Barkley Urban Village	80%	600	14%	136	82%	640	482	3,565	4,812
12. Roosevelt	70%	400	56%	564	66%	320	661	1,098	2,543
13. Alabama-Silver Beach	61%	220	88%	879	85%	700	0	2,551	3,850
14. Cordata-Meridian	69%	380	3%	28	52%	40	421	7,294	7,663
15. King Mtn	39%	0	1%	6	15%	0	0	2,412	1,918
16. Irongate	5%	0	0%	0	18%	0	0	3,529	3,029
Citywide									56,073

Slide 22

22

Multiple Benefits of Annual Reporting

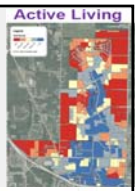
- ✓ Annual compliance with GMA "*adopt and enforce concurrency ordinance*"
- ✓ 'Over horizon' look at city-wide multimodal transportation system
- ✓ Informs annual 6-Year TIP for capital improvement needs
- ✓ Simplifies project review process
- ✓ CSA "concurrency mitigation" for pedestrian & bicycle infrastructure
- ✓ Pedestrian & Bicycle Master Plan Consistency
- ✓ Implements Land Use & Transportation visions, goals, and policies
- ✓ On-going recommendations for enhancements to program



Slide 23

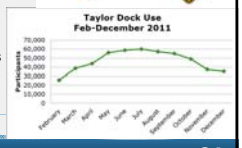
23

Future Metric Enhancements



Bellingham's Multimodal Transportation Concurrency Program is a work in progress and over time we may enhance it by:

- **Adding Connectivity Analysis and Metrics**
  - 2010 Demonstration project using ViaCity by TranspoGroup, Inc.
  - Requires dedicated funding, currently not available
- **Incorporate Pedestrian and Bicycle Counts**
  - Annual bike-ped counts collected each September
  - Collaborative effort between WSDOT & City
- **Incorporate Multi-use Trail User Counts**
  - Park trail user data from automated trail counters
- **Other enhancements or new metrics?**



Slide 24

24

Transferability to Other Jurisdictions

- Bellingham's Multimodal Transportation Concurrency framework is transferable to other urban, but not rural, jurisdictions
- "Plan-based" system tailored to achieving *local* Comprehensive Plan goals and priorities for *urban infill* and *multimodal transportation*
- Modal measurements must be registered to local land use contexts and data needs include:
  - GIS-based annual measure of sidewalk & bike network completeness
  - Annual arterial street traffic counts
  - Transit data for seated capacity & ridership

Slide 25

25

Conclusions & Recommendations

- There is no magic, unifying, "one-size-fits-all" transportation concurrency methodology
- Bellingham's Multimodal Transportation Concurrency Program is a work in progress and over time we will adjust and enhance it
- It's good that GMA requires transportation concurrency, but State shouldn't dictate or standardize methodology to be used locally
- If "Off-the-shelf" LOS standards & methodologies are used, they must be adjusted to account for unique local land use and transportation contexts, goals, and circumstances
- Best Practice = Create tools and metrics to help accomplish what your community wants for the long term.

Slide 26

26

For more information

www.cob.org/services/neighborhoods/community-planning/transportation/index.aspx

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City of Bellingham

Extra Supporting Slides

If Necessary in Q & A

City of Bellingham

GMA Land Use & Transportation Elements

RCW 36.70A.70 Comp Plan – Mandatory elements.
"The plan shall be an internally consistent document and all elements shall be consistent with the future land use map."

RCW 36.70A.070 (6) requirements: "A transportation element that implements, and is consistent with, the land use element."

RCW 36.70A.070 (6) (b) "Local jurisdictions must adopt and enforce [transportation concurrency] ordinances which prohibit development approval if the development causes the ***level of service [LOS]*** on a locally owned transportation facility to decline below the standards adopted in the transportation element of the comprehensive plan, unless transportation improvements or strategies to accommodate the impacts of development are made concurrent with the development."

Therefore, if the land use element calls for infill, then the transportation element, the transportation concurrency ordinance, and the adopted LOS standards must be designed to allow infill (rather than prevent it).

Sounds pretty simple so far ….. *right?*

Slide 29

29

Public Controversy: LOS & Traffic Congestion = OMG!

Bellingham Herald newspaper headlines fueled controversy over City staff's proposed Transportation Concurrency policy approach

"City policy would lead to severe traffic congestion"
- Sunday, June 5, 2005, Bellingham Herald Opinion

"City wrong to allow traffic woes to fester"
- Sunday, May 7, 2006, Bellingham Herald Opinion

"Bellingham maddeningly illogical on growth, traffic"
- Sunday, June 10, 2007, Bellingham Herald Opinion

Public sentiment favors accommodating automobile convenience at the cost of other transportation modes and land use goals

Slide 30

LOS, Concurrency, & The Need to Change Perspectives

- **Public/Community:**
  Wish to plan for misperceived "excellence" – LOS A or B;
  Outcome = would waste tax-payer dollars on under-utilized roads
- **Anti-Growth & NIMBY Groups:**
  "Planning to Fail is Failing to Plan" *(Bham Group "Responsible Development")*
  Outcome = denying compact infill encourages *more* urban sprawl
- **Traffic Engineering:**
  Maximize vehicle "through-put" while minimizing vehicle "delay";
  Arterial or Intersection LOS "F" = "failure" *(inaccurate & temporary)*
  Outcome = measure & mitigate (widen) for vehicle capacity only
- **21st Century Transportation Planning:**
  Balance & integrate transportation improvements according to land use context and mobility needs of all transportation users;
  Outcome = GMA compliance, reduction of urban sprawl, and *stated expectation* of peak hour traffic congestion in urban places

Slide 31

BREAKING GRIDLOCK CREATING NEW ALLIANCES

Is There A New Math For Evaluating Concurrency?

City of Tukwila
Multi-Modal Level of Service

Cyndy Knighton, Senior Transportation Engineer

Tukwila Multi-Modal LOS

2009 EETP grant of $69,500 to develop MMLOS standards

- A tool to transform its auto-dominated transportation system to one that promotes alternative modes and reduces VMT

City Goals

- Include in Transportation Element update
- Develop quantitative approach to implement Walk & Roll and Complete Streets
- Open funding opportunities for non-motorized CIP projects
- Support Southcenter redevelopment

Tukwila Multi-Modal LOS

The Plan

- Inventory existing bicycle and pedestrian conditions leveraging data from the City's *Walk & Roll* non-motorized plan
- Identify pedestrian and bike LOS standards (Transit excluded)
- Calculate City-wide levels of service for pedestrian and bike modes on all arterials
- Identify existing deficiencies
- Use the pedestrian and bike LOS to decide what facilities are needed for 2030
- Integrate the non-motorized LOS into development review standards and public improvement plans

Spoiler Alert!

But it didn't work as expected

- Auto LOS is a familiar old standby
- Bike LOS works pretty well
- Pedestrian LOS is problematic
  - Lack of sensitivity to adjacent land uses is biggest downfall
  - Not a tool to use to identify potential mitigation

Traditional Level of Service (LOS)


LOS A –B


LOS C – D


LOS E – F

- Measures speed, maneuverability, interruptions
- Generally focused solely on the automobile
- Oblivious to the impacts on other modes of travel

Traditional Pedestrian LOS

Traditional Bicycle LOS

Highway Capacity Manual 2010

- Comfort based
- LOS based on:
  - Autos: quality of service
  - Transit: quality of service; *comfort*
  - Bikes: *comfort*
  - Pedestrians: *comfort*
- Accounts for:
  - Street cross-section
    - Travel lanes
    - Bike lanes
    - Parking
    - Landscaping
    - Sidewalk
    - Bus Shelters
  - Speed of traffic
  - Vehicle volume (ADT)

Highway Capacity Manual 2010

- Multimodal Level of Service – what are we getting at?
  - Is this a nice place to walk?
  - Is this a nice place to bike?
  - Is transit convenient?
  - Bottom Line – Are there options besides the car?

Basic Concept of MMLOS

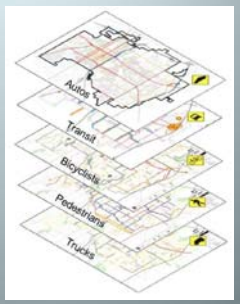
- 2010 Highway Capacity Manual
- Each urban street right-of-way is shared by 4 major types of users:
  - Pedestrians
  - Bicycle riders
  - Transit passengers
  - Auto drivers
- Urban Street should serve all users.
- Transit LOS: Not included for Tukwila project

Basic Concept of MMLOS

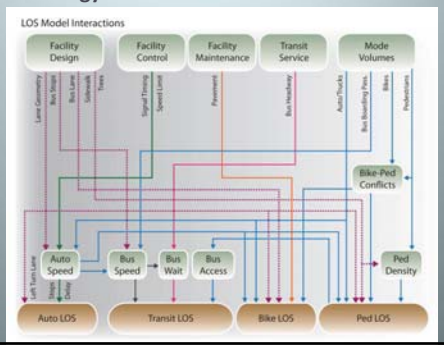
- Developed four separate, independent LOS models
  - Auto LOS
  - Transit LOS
  - Bicycle LOS
  - Pedestrian LOS
- Did not develop a single LOS by integrating the four modes of travel

Layered Network Connection

- Layered network provides
  - Preferred features by mode for evaluating level of service
- MMLOS could provide a method for
  - Identifying layer-specific deficiencies
  - Prioritizing modal improvements by layer
  - Suggesting features to be included in the layered network



2010 Highway Capacity Manual – MMLOS Methodology



Application of MMLOS

Auto LOS

Application of MMLOS

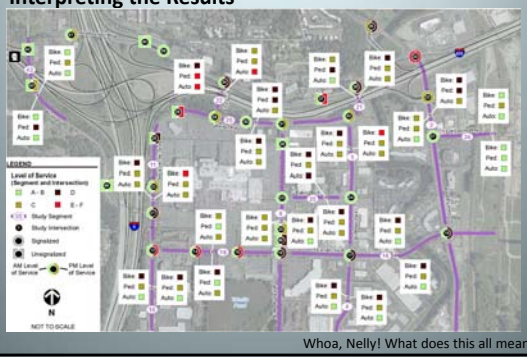
Bicycle LOS

Application of MMLOS

Pedestrian LOS

Application of MMLOS

Interpreting the Results



Whoa, Nelly! What does this all mean?

Application of MMLOS

Lessons Learned

- LOS results generally met expectations, particularly for bicycles
- Some surprises: Lack of a sidewalk did not lead to automatic LOS F
- Difficult to score LOS A or LOS F
- Not tuned to identifying mitigations
- Not sensitive to urban form/adjacent land uses

- Need for clear policy guidance and design standards
  - Does not replace need for design standards

Reality Checks

- Bicycle LOS A/B – SB E Marginal Way

Reality Checks

- Bicycle LOS A/B – WB 112th Street

Reality Checks

- Bicycle LOS A/B – NB 51st Ave (Seg # 49)

Reality Checks

- Bicycle LOS E/F – NB Interurban Ave

Reality Checks

- Bicycle LOS E/F – WB 180th Street (Seg #12)

Reality Checks

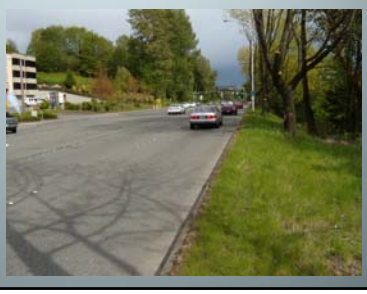
- Pedestrian LOS A/B – NB Macadam Rd S
- SB LOS C?

Reality Checks

- Pedestrian LOS D – WB Southcenter Blvd

Reality Checks

- Pedestrian LOS D – WB Southcenter Blvd
- Really?



Reality Checks

- Pedestrian LOS E/F – SB 61st Ave S
- NB LOS C

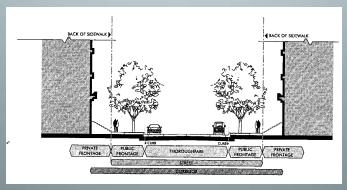
Challenges:
Urban Form

- LOS results not sensitive to adjacent uses
- Challenges in applying a data driven LOS (engineers love) but doesn't support qualitative urban design (planners love)
- Not sensitive to existing or planned future land uses – not context sensitive
- Not a good tool for identifying mitigation

Transportation Strategies

Develop streets and public frontages that encourage walking, bicycling and transit ridership, as well as support auto use

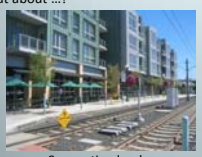
- MMLOS can identify deficiencies
- MMLOS can't be used as nexus for desired urban form especially for pedestrians



Tukwila's Conclusion

HCM 2010 MMLOS – not quite there yet

- What about …?



Supportive land uses

Urban design factors

ADA Features

Identifying mitigations

What's Left?

- Complete Transportation Element Update
  - Establish MMLOS standard
- Develop Design Standards
  - But can they be based on MMLOS?
  - Still need policy direction to achieve vision
- Prioritize Project Needs
  - Competing for funding
  - State law does not yet support MMLOS-based impact fees
  - Funding sources not necessarily supportive of non-motorized needs

- **Acknowledgement:** "This project is funded in whole or in part by funds made available through the American Recovery and Reinvestment Act (ARRA). This funding was awarded by the US Department of Energy through the Energy Policy Division of the Washington State Department of Commerce under Energy Efficiency and Conservation Block Grant No.DE-EE0000849."